

“NO STATIONARY MACHINES OR POWER TOOLS!”

THE TOP

20 TOOLS

FOR WORKSHOPS OF ANY BUDGET!



“ PLUS DISCOVER 3 FUNDAMENTAL TOOLS THAT CAN'T BE BOUGHT FOR ANY PRICE! ”

When I've been asked to list what I consider the most important, must-have tools of the woodworking trade, people are surprised when I don't immediately rattle off a list of cabinetmaker-grade stationary machines and high-tech hand power tools. Sure, I think all these tools are important, desirable and wonderful, and I know that I, for one, couldn't have made a living without them. Plus, I love all this stuff just as much as any other full-blooded woodworker.

But other tools - sometimes the most simple and primitive - have also rewarded me with dramatic increases in production efficiency, raised the level of safety in the shop or contributed significantly to my enjoyment of woodworking. Some of the tools on my list have, in fact, given me all three blessings at the same time.

Sources for the specialty tools mentioned here can be found in my guide: [Ultimate Small Shop](#)

1.

A Set of Decent Workbenches

It's hard for me to admit this publicly, but I worked for two out of my three decades of professional woodworking without owning a decent workbench. And worked is the operative term here. Without a bench that was solid, that was sized to my height and to the work I did, or that offered decent vises and other holding accessories placed in the right spots, I was making more work for myself. Work that I wasn't getting paid for. Work that I wasn't enjoying.

I finally realized after too many make-do work surfaces that the right workbench with the right accessories does much of the work for you. A properly designed and well-made bench quickly holds stock securely at the right height and working position for all manner of hand and hand-power tooling. An assembly bench or table provides a solid and level surface at a convenient height for putting together

components. The assembly table can also double as a stock support for materials that will be fed into the table saw, giving you a much welcomed helping hand.

Other workbenches can be designed to meet specific tasks, such as sharpening or sanding. Storage options hold all the appropriate tools for the task at hand, and specialized accessories, like an integral dust-collection system for the sanding table, make the work safer, more efficient and more pleasant. These specialized workbenches are the keystone of an efficient workstation.

Having enjoyed the fruits of a shop filled with excellent workbenches, I can't imagine what I was thinking in those first two decades. I must have been too busy trying to do work on stock that wasn't properly oriented, or was loose or had fallen on the floor.

2

A horse, in team with a drawknife and a spokeshave

Of all the hand tools I've introduced my hands to, the drawknife is the one that has proven to be absolutely the most versatile and most fun to use. Simply no other tool can do what it does, which is to quickly and accurately (with practice) remove slices from a length of wood in nearly complete, dust-free silence. It doesn't do so indiscriminately either.

Instead, following the will of my hands, the drawknife almost effortlessly follows the grain of the wood as close as I want it to. This is crucial if I'm making ladder rungs or tool handles, where I must avoid grain run-out (and thus potential shear failure under heavy loads). This same maneuverability also allows me to make the tool follow complex curves, inside and out. But it can play rough too, quickly knocking off corners

of boards and removing deep mill-marks and defects prior to finish smoothing with other tools.

If I want to smooth the scalloped surfaces characteristically left behind by the drawknife and/or to smooth areas of rough grain, I'll switch to a spokeshave. I don't use the metal-type shaves; I never got used to them, finding them hard to control. Instead, I use the wood bodied type that holds the blade in the base so that the flat of the blade contributes to the shoe of the tool. This makes the tool highly controllable and less likely to chatter and mar the surface of the wood. The surface left behind by a sharp spokeshave needs no sanding.

So where does the horse come in? Well that's what the traditional name for the shop-made, foot-operated clamp that supports and holds lengths of wood in appropriate positions for the drawknife and spokeshave. An ancient tool, the shaving horse involves you in a symbiotic relationship during the

shaving process. As you pull against the wood with the drawknife, your feet automatically brace against the foot board that produces the clamping action. The harder you pull the knife, the harder you push the board and thus the harder the horse grabs onto the board for you. Yet when you release the pressure, the board is instantly free so you can turn it for shaving another facet.

Best of all, through the whole process you are sitting comfortably (and you can really get carried away carving the seat to perfectly fit your behind). I've spent many of an entire day on the horse (when I was making chairs and Farm implements from green 'wood when I lived in Pennsylvania) and enjoyed myself immensely. I have yet to find another facet of woodworking where you get to sit at a comfortable seat all day, producing finished components while making hardly a sound and nary a speck of sawdust.

3

Swivel-handled scraper

Scrapers in general must be among my top 20 as there is simply no better way to smooth hardwoods with difficult grain structure. When you can't plane it smooth, you can always scrape it smooth. The trick is to learn how to get a really sharp, yet strong burr on the scraper's edge.

The secret is to get the blade really sharp first. I hone the blade (while mounted in a mixture to maintain the angle) on a progression of waterstones or microfinishing paper fixed to a flat plate. Most mounted scrapers are ground at 450, while the thin, handheld types are square. Even that 90° corner; however, should be razor'-sharp for best results. The next crucial key is to be sure that your burnisher is free of nicks and other roughness. That roughness will transfer to the burr. Because the burnisher must be harder than the steel of the blade, I get best results

from a real burnishing tool, though I get OK results with the back of some of my gouges and even one of my old cabinetmaker's screwdrivers (which has a highly hardened shank).

The final key is to press that burnisher really hard against the blade edge to draw a smooth, solid burr. If you're pressing hard, you need to make only two to three strokes to get a good working burr.

I like using handled scraper blades for this important reason: the blades get incredibly hot. You can actually burn your fingers on a scraper blade in hard action. (Plane blades get hot too, but you never feel them because they are buried in the body of the plane.) It's also hard to hold the blade at the most effective cutting angle during a sweeping motion.

After using a handled scrapper for a year, I stumbled across an old scraper tool that featured a ball-and-socket joint where the handle joined the blade holder.

With a little twist, I can loosen the handle and adjust it to any angle I want. This puts my hands at a much better angle for pulling, as I'm usually standing to the side of the board at the bench. A small bar behind the blade holder provides a grip for my second hand and puts force right behind the blade where it's needed most. This tool makes scraping - generally a highly aerobic task - much easier, more fun and more effective.

4

Waterstone sharpening system and microfinishing paper blade-flattening system

One of my mentors once told me that the best thing to do with my oilstones was to chuck them out the window of the boat shop where we working. That way, they would sink to the bottom of Rockport Harbor and I would never have to deal with them again. I looked at my trusty old oilstones that night and saw what he meant: lurking unclear a grimy rag, they were dished from use because I never seemed to get around to flattening them on the belt sander.

That's because when I did they clogged the paper with oily grit. Of course, the poorly maintained stones meant my plane and chisel blades were getting dished too, having been forced to take the shape of the stone. Then there was the usual mess of oil on my hands as I

handled them - oil that would too often find its way onto the wood I was working with if I didn't take the time to thoroughly wash my hands. As if that was going to happen with any regularity!

The next day I went to town and bought a set of Japanese waterstones, and after one more day I took my mentor's advice and chucked the oilstones in the salt chuck. I never once regretted doing that. The waterstones sharpen my cutters at probably twice the speed of my old oilstones, and they are always absolutely flat because it takes just a moment to keep them that way. (I flatten the coarsest stone on a diamond plate, then flatten the other stones to the coarse one with just a few strokes.) Because there is no oil involved, my hands are much easier to wash clean.

In the last several years I installed a Tormek water grinding stone system in my shop. Though it doesn't produce a sharper edge than the flat stones, it does produce the razor-sharp edges in half the time.

Because the stone turns slowly and is constantly cooled by water, it can never change or destroy the temper of my cutters - something a regular grinding wheel can do all too easily. My system has a wide selection of available fixtures to hold, at a precise angle to the wheel, blades of all kinds from chisels, to plane irons, to axe heads, to scissors, to esoteric carving tools, to 12" planer blades.

In general, I sharpen the bevel of my plane irons and chisels on the wheel, and then hone the back of the blades on my flattened waterstones.

That is, if the backs of my blades are already essentially flat. If not, I use a microfinishing paper sharpening system made by Mark Duginske to get and

to keep them that way. It's a simple process: you set the fixture in a vise, install a sheet of paper on the flat plate glass table with the screw hold-downs and then rub the back of the blade on the paper using water for a lubricant. For initial flattening, I start with the coarsest paper, working my way up to the finest until I get a perfectly flat mirror-like finish.

5

Precision fence and stop gauge systems on stationary tools

The day I installed a decent fence and gauge system on two machines – my 10" cabinet saw and chop saw – was the day I started to actually make a profit at woodworking.

That's because from that day on I stopped using one of the most time-wasting, error-prone tools that ever found a place in my shop: the tape measure.

Because these accessories allowed me to set the machines to their own rules in seconds with no margin of error between them, I never needed to set a fence or stop to my tape measure again.

Simply put, if I wanted a panel be ripped 18" wide according to my cutting list, that's where I put the

cursor on the rip fence. If I wanted to cut a board 8" long to match the panel, I set the cursor of the chop saw to that number and chopped away.

As long as I checked the cursors by cutting scraps at the beginning of the process, I enjoyed a fail-safe system for cutting stock to cutting lists with incredible precision and speed.

6

Saddle square

Even though I rarely do hand joinery in my production work, I still enjoy being productive. So when Bridge City Tool Works send me a saddle square to try out, I paid attention because the layout of the cut lines is probably the most difficult and time-consuming portion of creating a simple joint. What the saddle square does is allow you to lay out two sides of the joint at the same time. Not only does this save time by cutting in half the number of times you must square to a mark, but the design of the tool assures that the lines will match perfectly and be absolutely square to the corner it's held to. Plus, it's a beautiful tool to look at. Another version of the saddle square features a blade with angled sides (one at 8:1 and the other at 6:1) hinged to a straight-sided blade. You will use this tool, as I'm sure you have already guessed, to mark dovetails.

7

High-end, low-angle block plane

The very first hand tool I bought for myself was an old Stanley low-angle block plane. Because part of the casting was chipped, the junk store guy in Barrington, New Hampshire, let me have it for 50 cents. I used that plane on an almost daily basis for nearly 20 years, and I still have it today (though it now enjoys a well-deserved retirement). The little plane got an early retirement because it got replaced by an upstart made in Maine by Thomas Lie-Nielsen.

The Lie-Nielsen low-angle, manganese-bodied plane earned its place in my apron not only because it's so pretty, but because it works so much better than the old Stanley ever did. Not that there was anything wrong with the Stanley; even though it was chipped, it worked as well as it was designed to. The secret to Lie-

Nielsen's plane, however, is a better design. While the Stanley relies on an unrefined casting to support the blade, the Lie-Nielsen features milled surfaces that provide a broad surface for the blade to securely rest upon at a precise angle.

Also, the blade of the Lie-Nielsen is much thicker than the Stanley, a feature that resists chattering. The slightly harder steel also helps the Lie-Nielsen stay sharper longer. Finally, the hold-down cap of the Lie-Nielsen, smooth as a worry stone, fits my palm perfectly. It just feels good to have it in my hand. These days, the Stanley feels best as a fond memory.

8

Plunge router

I've been in woodworking long enough to remember when routers were little more than a motor with a handle stuck on the side. To me, they were basically a powered molding plane. When the plunge mechanism was finally made widely available, it was really a reinvention of the tool.

Suddenly, the router could do so many more things with safety and precision. The possibilities for the humble router were magnified enormously. Instead of using routers just for shaping edges and hogging away material, I now began using them for everything from making mortises to creating complex recesses for fine inlay work. Once routers could take the plunge, they joined the ranks of my indispensable hand tools.

9

Japanese-style saws

Not much chance you will have read it here first, but Japanese-type saws work much better than western-style saws in most applications. It takes a while for us cowboys to get used to a saw that cuts on the pull rather than the push stroke but it's worth getting used to. Because the blades are under a tension load only during the cutting phase, they can be much thinner than push blades.

That means the kerf is smaller', which means the amount of material you have to cut away with your muscles is smaller. And that's a good thing when you are working wood by hand.

The blades are also generally a harder steel than western blades, which helps them stay sharp longer. The coarsest cutting saw that I own is a Japanese timber saw with a 2'- long blade. The finest saw that I

own is a Japanese dovetail saw that features a slightly curved blade and teeth as fine as the hair on a gnat's back.

The one application where I do not use a Japanese-type saw (unless it's one of the hybrids with Japanese-style teeth and a thick western-style blade) is when I'm hand-ripping boards. I like the blade to cut on the push stroke because that allows me to put my weight behind it, and I just can't get used to pulling a saw from underneath a board with the same amount of force and speed.

10

Foam brushes

I'll admit it, one of the primary reasons I now use foam brushes for applying everything from glue to spar varnish is because I'm lazy. I really don't enjoy cleaning brushes, which often takes as long as the time it took to use the brush in the first place.

I really like the fact that when I'm done applying the finish or glue, I can just chuck the brush in the waste bin. It costs me something, but not that much since I buy them by the box. (I buy 2¹/₂" width, which works for the majority of tasks. If I need a narrower brush, I cut it down with scissors.)

Over time I probably spend more replacing an expensive bristle brush after one too many times of not having washed it thoroughly than the dozen or so foam brushes used for the same amount of work.

Even if I wasn't lazy, however, I still would have switched over. That's because not only are foam brushes cheap, but they seem to work as well as - and sometimes better than - most bristle brushes.

I did a comparison test, pitting my best natural-bristle brush against a foamie. Spreading paint, the foamie produced fewer brushstrokes than did the bristle. When used for spreading varnish, the foam did make more bubbles than the bristle, though because the varnish was warm and low in viscosity, the bubbles did break before the task set in.

One drawback with the foam was that it did not hold quite as much fluid, which meant I had to dip a bit more often. Another drawback was that after about 10 minutes the foam lost some stiffness and started to fold over during the brushstrokes.

Of course, that was easily fixed by chucking it and replacing it with a new one. This does rouse some

feelings of having become a throwaway consumer . . .
tempered by not stinking up the environment with
brush cleaners all the time!

11

Wax (spray or candle)

I could hardly believe it, but after ripping only six boards the table saw was starting to feel really dull to me. Each successive board was harder to push through than the last, yet I had just put a sharp blade on the arbor.

Then I had a vision: my old wood shop teacher pulling a funky old candle out of his pocket, his 'Jiffy sharpening stick." Sure enough, a quick clean-up of the saw table with a squirt of kerosene followed by a few swipes of candle wax and the feed was back up to speed - just as if I had put a new blade on the saw. In fact, the blade wasn't getting dull; my attention was. I should have thought about the fact that the pitch commonly found in pine boards is incredibly sticky stuff and that when it gets on the table surfaces it quickly bogs down the feed.

My use of the “Jiffy sharpening stick” isn't limited to machine tables. I use it regularly on the base of hand planes, power planes, hand and power saws and even on the threads of screws. The wax not only reduces friction (which reduces the effort required from you as the feeder), but also slows down the build-up of pitch and other residues. That's why, like my old shop teacher, I keep a stub of candle as an essential component of my shop aprons and tool belts.

12

Any and all cordless handheld power tools

It's sometimes hard for me to believe, but I've been in the construction trade long enough to remember the days before cordless power tools. I do remember clearly, however, days filled with hatred for cords. My most cogent memories usually involve scaffolding. Oh, how I loved it when the last hole to be drilled or the last line of the cut was just beyond the reach of the power cord.

So it was back down the scaffold to the truck for another piece of extension cord, which wasn't there, so it was back up the scaffold to untie the cord so I could reroute it to another outlet, which wasn't there because this was a new construction site with a single "temp" pole. Other fond memories include visions of tripping over cords that shouldn't be where they were

(again up on the scaffolding in one particularly vivid memory) and watching drill cords - pulled by some unseen force in another room - get caught under a table saw, nearly tipping it over onto a freshly laid hardwood floor. So when they finally got battery technology up to the point where a drill would actually drive a bunch of screws and a trim saw would actually cut off a piece of trim more than once. I was first in line to buy.

I now own six cordless drills, a cordless jig saw, a cordless trim saw and I'm looking at the new cordless router just out on the market.

13

Double-sided tape

I often need to hold some parts together temporarily; gang cutting identical components or holding a cutting pattern in place during milling are two typical examples in my shop.

I used to think the only safe and secure way to do this was to either fasten them together with screws (which meant being sure the holes wouldn't show) or, if screw holes would show no matter where I put them, to glue the parts together with craft paper in between. But screws are time-consuming to install, and glue (even with the paper buffer) is a pain to remove.

Then one day I watched carpet installers use a strip of heavy-duty carpet tape to hold down a piece of carpet in a hard-to reach area. Eureka! If tape can hold down heavy carpet in the hallway of First Federal. I thought to myself, I could certainly use it to hold a piece of $\frac{1}{4}$ "

pattern stock to a work piece. As I drove home, more applications popped into my mind: holding a spilling board in place on a rough-cut plank, holding drawer laces temporarily in position against their boxes for locating fastenings, pasting cut-offs of curved legs back in place so they will support the leg for cutting the side curve, and so on.

Using carpet tape as a temporary fastener is not only fast, but it's secure for all my typical applications. It's so strong, in fact, that I have to be careful when wedging stuff apart not to mar the work. I use a small crowbar or a chisel as a wedge, if possible working the parting tool in areas of the work piece that won't be seen after installation. But unlike the craft paper trick, once the parts let go, the tape rolls right off, rarely leaving any residue to clean up. I can't imagine ever going back to screws or glue since that day when I laughed all the way home from the bank.

Stick-on sandpaper

Speaking of sticky tape, I'd like to shake the hand of the guy who thought up making sticky-backed sandpaper and selling it by the roll. Ever since I discovered that you could buy rolls of high quality sandpaper with an adhesive backing, I have not bought a single sheet of sandpaper. With the sandpaper mounted like a roll of toilet paper (I make up a board with an old hacksaw blade for a cutter'), I can pull out any length I need, depending on where I'm sticking it. I instantly apply the paper to the base of my power sanders, block sanders and chunks of wood or foam shaped to a particular curve. Sometimes I pull out a random short length and simply fold it over on itself to hand-sand a small area. At this point, I can't even think of an application where I would need a typical sheet of sandpaper. And if I did, I would probably hate the fact that there wasn't stickum on the back of it!

15

Aftermarket see-through router base

You would have thought that the people who make routers would have thought it nice to install a clear base that you could see through so you could see the stop marks, or the end of the board, or the cord that sometimes gets itself in the way. They didn't, but thankfully inventor/ woodworker Pat Warner did. Pat makes a line of clear; acrylic bases that are pre-sized and machined to fit on a wide variety of common routers. The one I own features an offset that not only provides a knob for getting a better grip, but adds welcome additional surface area when I'm working near the ends or outside corners of a work piece. Needless to say, this is the router (and I have eight of them) that I most often grab for doing freehand routing.

16

Biscuit joiners

Ah yes, the great biscuit joiner controversy: Do spline biscuits really constitute a woodworking joint? Well, I don't know the answer to that, but I do know that ever since I started using biscuits to join face frames and other common casework components I started seeing a real jump in my bottom line. I don't trust biscuits for situations where there will be a lot of load on the joint, but where the structures are fully supported (as face frames are) I have no qualms about using them. I've rarely seen a biscuit-joined connection fail, and when I did, it was due to operator error (which was me: I didn't put enough glue in the slots, which meant there wasn't enough glue to make the biscuits swell and really grab). I have yet to find a faster way to fasten two pieces of wood or panels together with a glued, wood-to-wood joint - which, come to think of it, sounds suspiciously like a woodworking joint.

17

Miniature power feeder

For all but the last five years of my woodworking career, I was the power feeler in my shop. I always thought that electric power feeders were for the big boys. To this small-time operator, they were an extravagance, I just couldn't afford.

Besides, I figured, I can do what they do just about as well. But I couldn't really. For one thing. I couldn't have the energy or strength to feed board after board tight to the shaper or table saw fence and table surface at a consistent rate – which meant stock burned when I went too slowly, or went off the cut line as I tired.

So when power feeders came down in price - and size - I went for one. I installed a miniature feeder on my router table and have hardly used it without the feeder since. It not only does all the work for you, it does it better than you could ever hope to. I can adjust the

rate of feed to match the type of cut and wood so that burning or scalloping is never a problem. Set correctly, the feeder pushes the wood slightly against the fence as well as the table surface so that the cuts are straight and consistent. Best of all, at the end of the workday, my muscles aren't screaming at me.

18

Throat plate with replaceable wood insert

Take a close look at your table saw. Most likely, you'll see that the throat plate that came with the saw leaves nearly a $1/4$ " gap around the blade. The manufacturer made it this way to allow the plate to be used at any blade tilt angle, but it compromises the saw's ability to make smooth cuts on the underside of the stock. Even worse, cutting stock narrower than the gap can be downright dangerous. That's because the stock is entirely unsupported next to the blade and can jam against the far end of the throat plate opening, causing a kickback.

To solve this problem, I upgraded my saw with an aftermarket throat plate. The plate features a replaceable wood strip that slides into place on the aluminum plate. I keep a number of strips ready to go,

each cut for my most common blade angles. I use others for common dado blade settings. And I put in a new blank strip when I'm cutting delicate veneered plywood or very narrow stock.

Of course, you can alternatively make your own throat plates out of melamine, using the stock one as a template. The point is: Don't use the stock throat plate for anything but rough cuts where the gap will be wider than the blade-to-throat gap.

19

Pocket hole jigs

Sometimes you don't need to make joints; you just need to screw things together. When you are looking for a fast way to fasten together fully supported face frames, or to install dividers in a drawer, or to draw stock snugly together during a gluing procedure, fastening can prevail over joinery. In these cases I reach for my Kreg pocket hole jig. Because it holds my hand drill at a shallow angle while I make the pilot hole, the point of the screw will come out clear the center of a board - perfect for drawing the load to its mating surface. This jig offers the fastest way I know of to draw two work pieces together while creating a joint that is as strong as the screws that go into the holes.

20

The washable dust mask

Starting out in woodworking, when my enthusiasm was matched only by my naivety, I never wore dust masks even when immersed in the spewing clouds of an intense sanding spree. When my brain finally caught up with the fact that my allergies were peaking in direct relation to those episodes in the shop, I realized it might be a good idea to reduce the amount of dust that was going into my lungs.

So I went out and bought a disposable paper dust mask with a single little strand of rubber to hold it to my face, which at that time included a beard. Being a cheapskate, I used the same mask for days. Not that it really mattered as it hardly worked anyway. No way that little rubber band was going to create a seal around my nose and mouth, especially since it was fighting a beard.

When the sneezing fits persisted over weekends, I decided to upgrade to the professional version of the dust mask, which featured a thicker mask and two heavy-duty rubber straps. I even shaved my beard. It worked better at filtering out the dust, but (as you have probably also experienced) these masks are stuffy, restrictive and thus hard to wear for any length of time. Plus, they cost a lot more than the handyman/home-shop version, which meant I was even more begrudging about chucking them. I shudder to think of all the bacteria that found a home in those masks over the weeks they hung damp on a hook.

My next upgrade was to a helmet featuring a belt-mounted, battery-powered fan that kept a stream of lean air flowing across my face. This was a great improvement in keeping the dust out of my lungs" with the added benefit of providing a shield that protected my eyes during milling operations. But the helmet had its drawbacks too. The helmet and battery pack feel a bit heavy after a while, and the whole rig

takes about a minute to put on, which meant I often skipped putting it on when I was going to make only a quick cut or two on the saw. Then I discovered a washable mask at the Wooden Boat Festival in Port Townsend, Washington, last year.

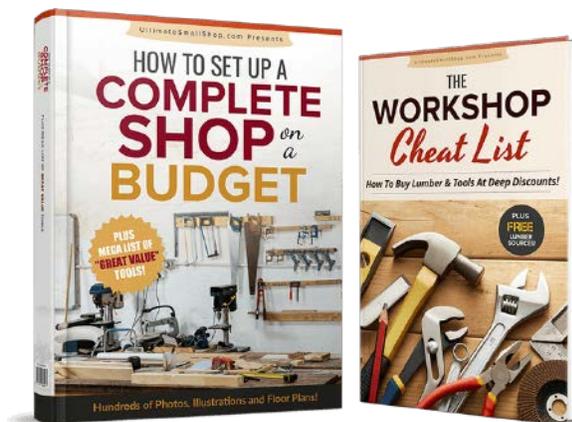
It was no surprise that it was designed, and now sold, by a working woodworker, a woodturner named Paula Nicks of Fort Myers, Florida. Here was a safety product that pushed all the right buttons: it is easy to put on, the hook and loop straps make it almost instantaneous, the polyester mesh filters dust as well as if not better than the thick paper masks and the microfibers of the mask are breathable - much less restrictive than the paper types.

This means I tend to keep the mask on most of the time I'm in the shop, not just when I'm actually producing dust. This also means all those microfine particles that are nearly always floating around in the shop don't get the opportunity to lodge in my lungs.

(The medics tell us that it is the finest, floating particles that do the most harm in our bodies anyway.) And best of all for this cheapskate, I never need throw the mask away when it gets dirty because these masks are designed to be washed and reused as many times as you want.

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To find out how to get *deep discounted tools* that you actually need, check out



UltimateSmallShop.com

My guide will give you multiple lists of various budgets and exactly WHAT tools to get and WHERE to get them at deep discounts

3 of the most fundamental and essential tools that can't be bought.

When I started up in woodworking with my back-40 buddies in the late 1960s, one of the most exciting field trips we made was a two-hour pilgrimage to the original Woodcraft store outside of Boston. On the altar like displays we drooled at the sight of wood-handled chisels, specialized hand planes, bar(not pipe) clamps and many other esoteric tools we could never see in any local hardware store or nearly any mail-order catalog. (Not exactly the case today if you've checked your mail lately!)

Woodcraft was the first place I ever saw a brand - new jointer plane, a cabinet maker's screwdriver or a

timber framer's mortise chisel - and I just had to have at least one of each. Sort of the same thing that happened when we stopped at Dunkin Donuts on the way home. Overtime, I did manage to acquire a wide selection (of tools, not doughnuts—well, actually both).

Then one fateful winter day, I experienced an amazing, though bittersweet, epiphany. I came to understand that tools, like doughnuts, were only a means to an end. **You could be well-rounded woodworkers as a result of the doughnuts, but not the tools.**

This realization happened while I was working on the Pilgrim – a trawler yacht build at Penobscot Boat Works in Rockport, Maine. As I busied myself laying out a curved transom window with my German-made trammel points set to a center point I had painstakingly established with my Starrett try square and marked with my Swedish-made layout knife, I looked up to see Tom Brown - an elderly, down east boat builder who had probably been working on boats

since the end of the 19th century - begin to cut a rub rail to length.

To get the new section of rub rail to mate with the section already attached to the hull, Tom had to cut a long scarf at a precise compound angle because the rub rail was curved two ways: to the sheer line and to the outside sweep of the hull. As I watched, Tom simply squinted at the new rub rail and began hand-cutting the scarf with his trusty old panel saw (a shorter version of a carpenter's standard hand crosscut saw). There were no layout lines on the rub rail. Instead, Tom was holding the length of wood in front of the scarf already cut in the rail that was attached to the hull. I was stunned! He was simply cutting that complex joint by eye!

On the first try he got it "spitting close." He then just pushed the loose rail hard against the one on the hull and then ran the saw through the juncture of the two

pieces of wood to make a perfect match. In less than two minutes

Tom had made a joint that would have taken me six tools and 60 minutes to make!

Tom had made use of a woodworker's three most essential - and non-purchasable - tools: **his eyes, his hands and his experience.**